

M 4.7, 20 km E of Petrolia, CA

Origin Time: 2023-10-16 10:20:49 UTC (Mon 03:20:49 local)
 Location: 40.3972° N 123.7792° W Depth: 10.0 km

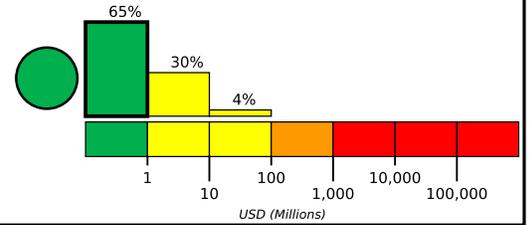
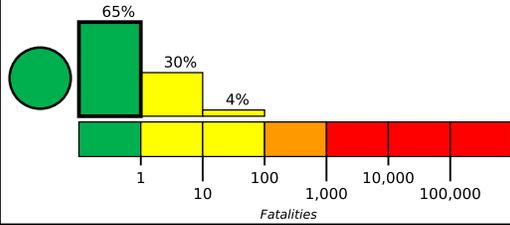
PAGER Version 6

Created: 1 week, 2 days after earthquake

Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

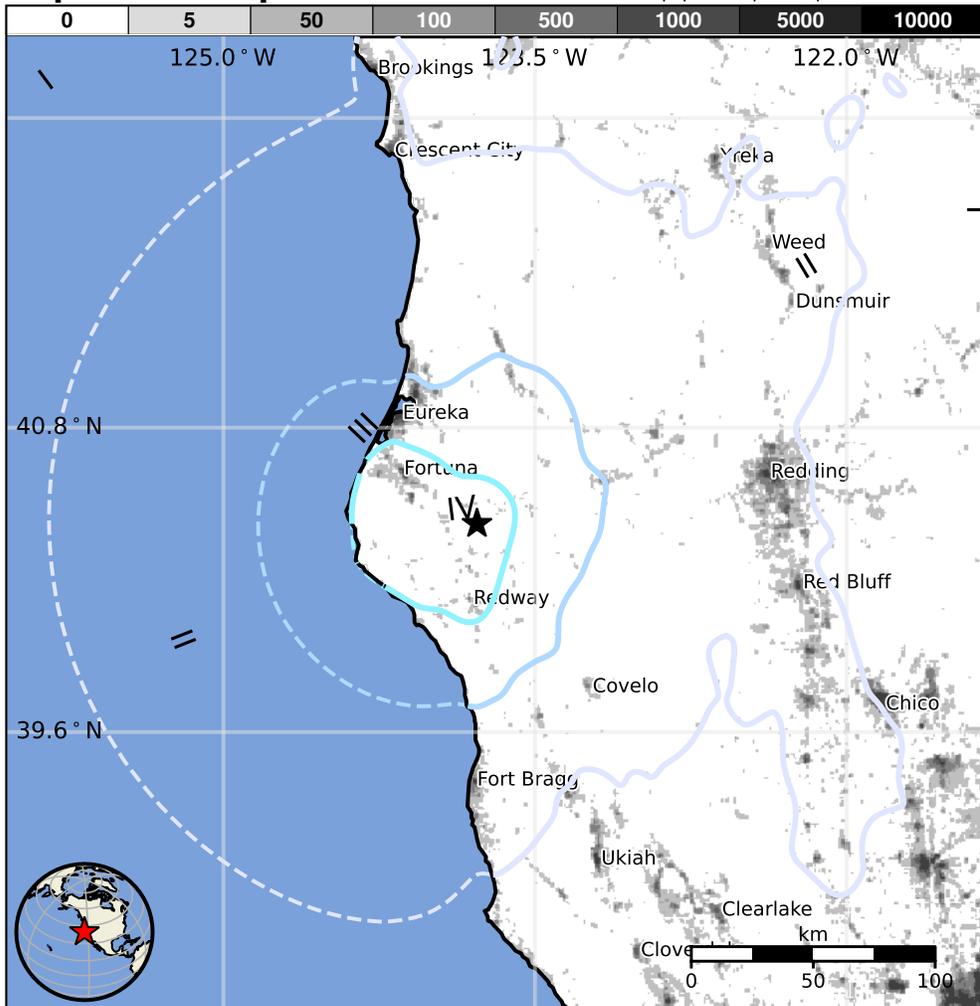


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	1,123k*	718k	36k	0	0	0	0	0	0	
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+	
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme	
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1993-09-21	258	6.0	VI(47k)	1
1989-08-08	396	5.4	VII(4k)	1
1980-01-24	347	5.8	VII(35k)	1

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Redway	1k
IV	Ferndale	1k
IV	Fortuna	12k
IV	Hydesville	1k
IV	Rio Dell	3k
IV	Eureka	27k
II	Redding	90k
II	Chico	86k
I	Yuba City	65k
I	Sacramento	466k
I	Arden-Arcade	92k

bold cities appear on map.

(k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/nc73947830#pager>

Event ID: nc73947830